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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,709	02/24/2004	Richard F. Dean	020505	3646

23696 7590 02/28/2008  
QUALCOMM INCORPORATED  
5775 MOREHOUSE DR.  
SAN DIEGO, CA 92121

EXAMINER
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REGO, DOMINIC E

ART UNIT	PAPER NUMBER
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2618

NOTIFICATION DATE	DELIVERY MODE
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02/28/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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nanm@qualcomm.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/786,709	<b>Applicant(s)</b> DEAN, RICHARD F.	
	<b>Examiner</b> Dominic E. Rego	<b>Art Unit</b> 2618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/26/2007 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5,9-14,18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwai (*US Patent #5,815,795*).

**Regarding claims 1,10 and 19**, Iwai teaches method/apparatus for detecting oscillation in a repeater system (*Col 2, line 9-14; Col 2, line 50-56*) comprising: processing communication signals in a wireless communication device circuit

embedded in a repeater ; and using the communication signals processed at the wireless communication device circuit to determine if the repeater system is in oscillation (*Col 1, line 7-15; Col 2, line 9-14; Col 2, line 50-56, especially Col 2, line 50-56, Iwai teaches the present invention to provide a wireless repeater capable of automatically detecting its own oscillation with accuracy, so processing communication signals in a wireless communication device circuit embedded in this wireless repeater is inherent and using the communication signals processed at the wireless communication circuit to determine if the repeater system is in oscillation*).

**Regarding claims 3,4,12 and 13**, Iwai teaches the method/apparatus, wherein using the wireless communication device circuit comprises: using the wireless communication device circuit to measure signal quality from the base station; and determining oscillation if the signal quality meets a certain criteria (*Col 3, line 14-21; Col 3, line 46-53*).

**Regarding claim 5, and 14**, Iwai teaches the method, wherein determining oscillation comprises determining oscillation if the signal quality degrades from a level that existed before the repeater was used (*Col 3, line 14-21; Col 3, line 46-53*).

**Regarding claims 9 and 18**, Iwai teaches the method, further comprising: reducing gain of repeater if the repeater system is in oscillation (*Col 9, line 18-29*).

**Regarding claim 21**, Applicant stated in paragraph 055, the method wherein the using step uses the ratio of energy of a chip of a pilot signal to total interference ( $E_c/I_o$ )

obtained from the processed communication signals to determine if the repeater system is in oscillation is well-known ( Paragraph 0055).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2,11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwai (*US Patent #5,815,795*) in view of Ness (*US Patent #5,767,788*).

**Regarding claims 2,11, and 21**, Iwai teaches the method/apparatus, wherein using the wireless communication device circuit comprises: establishing a communication link from the wireless communication device circuit to a base station; and determining oscillation when the first judging means judges that the direct current component of the power level signal has reached the predetermined upper-limiting level, and when the second judging means judges that the alternating current component of the power level signal is smaller than the predetermined criterion level (*Col 2, line 57-Col 3, line 21*), except for establishing a call from the wireless communication device circuit to a base station.

However, in related art, Ness teaches establishing a call from the wireless communication device circuit to a base station (Col 4, line 40-Col 5, line 25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ness to Iwai in order to determine repeater oscillation if call can not be established.

6. Claims 6-9 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwai (*US Patent #5,815,795*) in view of Seki et al. (*US Patent #20040248581*).

**Regarding claim 6 and 15**, Iwai teaches all the claimed elements in claims 3 and 12, except for the method/apparatus, wherein using the wireless communication device circuit comprises: obtaining signal to noise ratio value to measure the signal quality.

However, in related art, Seki teaches the method/apparatus, wherein using the wireless communication device circuit comprises: obtaining signal to noise ratio value to measure the signal quality (*Paragraph 0006 and claim 3*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the teaching of the method/apparatus, wherein using the wireless communication device circuit comprises: obtaining signal to noise ratio value to measure the signal quality, as taught by Seki, in the Iwai device in order to receive a signal with desired quality (*Seki, paragraph 0006*).

**Regarding claims 7 and 16**, Iwai teaches, the method/apparatus, wherein using

the wireless communication device circuit comprises: using the wireless communication device circuit to estimate at least one open loop power control parameter; establishing a communication link from the wireless communication device circuit to a base station using the estimated open loop power control parameter; and determining oscillation if the closed loop power control command is greater than a certain amount (*Col 2, line 50-Col 3, line 21*), except for the method/apparatus, wherein using the wireless communication device circuit comprises: receiving at least one closed loop power control command from the base station.

However, in related art, Seki teaches receiving at least one closed loop power control command from the base station (*Paragraph 0006*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the teaching of the method/apparatus, wherein using the wireless communication device circuit comprises: receiving at least one closed loop power control command from the base station, as taught by Seki, in the Iwai device in order to adjust the transmission power with the target value and avoid the oscillation.

**Regarding claims 8 and 17**, the combination of Iwai and Seki teach all the claimed elements in claim 7 and 16. In addition, Seki teaches the method/apparatus, wherein using the wireless communication device circuit comprises estimating at least a required transmit power to complete the call, wherein receiving closed loop power control commands comprises receiving at least power adjustment information (*Paragraph 0006*), and Iwai teaches wherein determining oscillation comprises

determining oscillation if the power adjustment information is greater than a certain amount (*Col 2, line 50-Col 3, line 21*).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic E. Rego whose telephone number is 571-272-8132. The examiner can normally be reached on Monday-Friday, 8:30 am-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a



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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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**Matthew D. Anderson**  
Supervisory Patent Examiner